

What is claimed is:

1. A radio frequency device comprising:

a circuit board having a ground pattern on a surface thereof;

a radio frequency circuit part and a transmission line disposed on a top surface of said circuit board; and

a metal shielding cap fixed to said circuit board so as to cover said radio frequency circuit part and said transmission line,

wherein said metal shielding cap comprises: a top plate disposed above said radio frequency circuit part and substantially parallel to said circuit board; and a grounded side wall being provided so as to hang down from a part of an edge of said top plate, having a spring property and being joined to said ground pattern of said circuit board so as to be electrically connected thereto, and a side wall of said metal shielding cap is open except for said grounded side wall.

2. A radio frequency device comprising:

a circuit board having a ground pattern on a surface thereof;

a radio frequency circuit part and a transmission line disposed on a top surface of said circuit board; and

a metal shielding cap fixed to said circuit board so as to cover said radio frequency circuit part and said transmission

line,

wherein said metal shielding cap comprises: a top plate disposed above said radio frequency circuit part and substantially parallel to said circuit board; a grounded side wall being provided so as to hang down from a part of an edge of said top plate, having a spring property and being joined to said ground pattern of said circuit board so as to be electrically connected thereto; and a non-grounded side wall provided so as to adjoin said grounded side wall, to hang down from another part of the edge of said top plate and to be shorter than said grounded side wall, a notch opened downward is provided at a boundary between said grounded side wall and said non-grounded side wall, and a side wall of said metal shielding cap is open except for said grounded side wall and said non-grounded side wall.

3. A radio frequency device according to claim 2, wherein said non-grounded side wall has a length larger than a height of said radio frequency circuit part, and said grounded side wall is joined to said ground pattern of said circuit board with a lower end of said non-grounded side wall abutting on the top surface of said circuit board.

4. A radio frequency device according to claim 2, wherein said opened part of a side surface of said metal shielding cap has a height and width set so that said metal shielding cap is not in contact with said radio frequency circuit part disposed

on said circuit board.

5. A radio frequency device according to claim 3, wherein said opened part of a side surface of said metal shielding cap has a height and width set so that said metal shielding cap is not in contact with said radio frequency circuit part disposed on said circuit board.

6. A radio frequency device according to claim 5, wherein said opened part of the side surface of said metal shielding cap is arch-shaped.

7. A radio frequency device according to claim 5, wherein a radio frequency circuit part whose impedance is sensitively affected by a distance from said metal shielding cap is disposed in the opened part of the side surface of the metal shielding cap.

8. A radio frequency device according to claim 6, wherein a radio frequency circuit part whose impedance is sensitively affected by a distance from said metal shielding cap is disposed in the opened part of the side surface of the metal shielding cap.

9. A radio frequency device according to claim 5, wherein a radio frequency circuit part for low power through which a low radio frequency signal power flows is disposed in a position in a proximity of the opened part of the side surface of the metal shielding cap, and a radio frequency circuit part for high power through which a high radio frequency signal power flows

is disposed in a position in a proximity of the non-opened part of the side surface of the metal shielding cap.

10. A radio frequency device according to claim 6, wherein a radio frequency circuit part for low power through which a low radio frequency signal power flows is disposed in a position in a proximity of the opened part of the side surface of the metal shielding cap, and a radio frequency circuit part for high power through which a high radio frequency signal power flows is disposed in a position in a proximity of the non-opened part of the side surface of the metal shielding cap.

11. A radio frequency device according to claim 2, wherein said opened part of a side surface of said metal shielding cap has a height and width set so that said metal shielding cap is not in contact with said transmission line disposed on said circuit board.

12. A radio frequency device according to claim 3, wherein said opened part of a side surface of said metal shielding cap has a height and width set so that said metal shielding cap is not in contact with said transmission line disposed on said circuit board.